

What is claimed is:

1. An endoscope system having a body comprising:

a cylinder having a head unit mounted by a camera device at one side
5 thereof and connected to a tube which is connected to an external device out of
a human body at the other side thereof;

a front fixing unit connected to the head unit, installed to an outer
circumference of the cylinder, and thereby fixable to an inner wall of an organ;

a rear fixing unit slidably installed at the outer circumference of the
10 cylinder and fixable to the inner wall of the organ; and

a moving unit connectedly installed between the front fixing unit and the
rear fixing unit for moving the head unit in the organ by an extension and
contraction when the front fixing unit or the rear fixing unit fixes the head unit to
the inner wall of the organ.

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2. The system of claim 1, wherein the moving unit comprises a
moving bellows forming a hermetic space with the outer circumference surface of
the cylinder, and the moving bellows is extended or contracted by amount of inner
air of the hermetic space.

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3. The system of claim 1, wherein the moving unit comprises
polymer extended or contracted by electricity appliance.

4. The system of claim 1, wherein the moving unit forming a hermetic
25 space comprises a double moving bellows having a sectional surface of a

doughnut shape, and the moving bellows is extended or contracted by amount of inner air of the hermetic space.

5 5. The system of claim 1, wherein the moving unit includes a plurality of bellows which connect the front fixing unit with the rear fixing unit, and the respective bellows are extended or contracted by amount of the inner air.

6. The system of claim 1, wherein a diagnosis tool is additionally mounted to the head unit.

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7. The system of claim 6, wherein the diagnosis tool is dye reacting with a cancer cell.

8. The system of claim 1, wherein the head unit is additionally provided with a frequency generating unit for generating frequency for virtual biopsy.

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9. The system of claim 1, wherein the head unit is additionally provided with a light source of infrared rays.

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10. The system of claim 1, wherein the camera additionally includes a steering system for adjusting an imaging direction of a camera.

11. The system of claim 10, wherein the steering system includes an upper plate on which the camera is mounted; a lower plate fixed to the head unit;

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and a plurality of connecting bridges for changing the imaging direction of the camera by connecting the upper plate and the lower plate and having a changed length thereof.

5 12. The system of claim 11, wherein the connecting bridge is functional polymer.

 13. The system of claim 11, wherein the connecting bridge is a pneumatic cylinder.

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 14. The system of claim 1, further comprising:

 a recognizing unit for recognizing a movement of an observer's pupil; and

 a controlling unit for generating a control signal according to the pupil's movement recognized by the recognizing unit,

15 wherein an image position of the camera and a movement of the body are controlled by a signal of the control unit.

 15. The system of claim 14, wherein an image outputting device for outputting image obtained by the camera is a head mounted display.

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 16. The system of claim 14, wherein the recognizing unit includes:

 a recognizing camera for imaging the observer's eyes; and

 an image processing unit for recognizing the pupil's movement from image

25 obtained by the recognizing camera.

17. The system of claim 15, wherein the recognizing camera is attached to the head mounted display.

18. The system of claim 15, wherein the recognizing unit recognizes a pupil's movement by measuring an electromyogram of a muscle around the observer's eyes.

19. The system of claim 15, wherein the control unit adjusts a focus distance of a camera according to a pupil's state of the recognizing unit.

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20. The system of claim 15, wherein the camera device further includes an illuminating device for illuminating so that the camera can obtain images, and the control unit controls brightness of the illuminating device according to the pupil's state of the recognizing unit.

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21. The system of claim 1, further comprising a joy stick for controlling an image location of the camera and a movement of the body.

22. The system of claim 1, further comprising a touch screen for controlling an image location of the camera and a movement of the body.

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